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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,372	03/18/2005	Tsuyoshi Asai	1105.44902X00	4774
20457	7590	10/23/2007		
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873			EXAMINER WYSZOMIERSKI, GEORGE P	
			ART UNIT 1793	PAPER NUMBER
			MAIL DATE 10/23/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/528,372

Applicant(s)

ASAI ET AL.

Examiner

George P. Wyszomierski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 10-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-8 and 19-22 is/are rejected.
- 7) ☒ Claim(s) 2,9 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 3/18/05, 6/29/06, 10/6/06, 7/25/07
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-9 and 18-22, drawn to a method, classified in class 75, subclass 367.
- II. Claims 10-17, drawn to an apparatus, classified in class 266, subclass 189.

2. The inventions are independent or distinct, each from the other because:

Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another and materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice a materially different process such as a process of filtering or cleaning air or other gases, e.g. by separating particulate material from the gases.

3. Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above and there would be a serious search and examination burden if restriction were not required because one or more of the following reasons apply:

(a) the inventions have acquired a separate status in the art in view of their different classification;

(b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;

(c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);

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(d) the prior art applicable to one invention would not likely be applicable to another invention;

(e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

4. During a telephone conversation with Alan Schiavelli on October 12, 2007 a provisional election was made with oral traverse to prosecute the invention of Group I, claims 1-9 and 18-22. Affirmation of this election must be made by applicant in replying to this Office action. Claims 10-17 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

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7. Claims 3 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In line 2 of each of these claims, it appears that the word "at" should be changed to "from", i.e. these claims appear to be describing an embodiment wherein inert gas is blown from not less than four separate parts.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 3-8, and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asai et al. (U.S. Patent 6,372,015) in view of Thompson (U.S. Patent 4,284,394).

Asai discloses a process that includes making nickel chloride by contacting chlorine gas with metallic nickel (in accordance with instant claim 7), reducing the nickel chloride by contacting it with a reducing gas, and cooling nickel powder generated from this process by contacting the powder with an inert cooling gas blown into its flow path. With respect to instant claims 5, 6, 21 and 22, Asai column 4, lines 23-29 specifically discloses the presently claimed limitations regarding the cooling step. With respect to instant claim 8, while Asai does not separate the cooling step into a first cooling process and secondary cooling process as presently claimed, the cooling process of Asai inherently includes these two cooling processes because the cooling step of Asai can be seen as a series of any number of cooling steps, i.e.

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the cooling process is not instantaneous but rather occurs over a period of time as the nickel powder contacts the cooling gas.

Asai does not disclose generating a "vortex flow" as recited in claims 1 and 8, and does not specify the number of blowing parts or angle of blowing of the inert gas as recited in claims 3, 4, 19 and 20. The Thompson patent indicates that it was known in the art, at the time of the invention, to cool metal particles by creating a vortex of inert cooling gases in the path of the particles. This vortex is created by blowing the cooling gas through a plurality of tubes set at different positions and angles to create a desired cooling flow pattern. While Thompson does not recite the numerical limitations of the instant claims, arrangements as presently claimed would fall within the purview of the methodology by which Thompson creates his vortex of cooling gas. In general, the recitation of numerical values in a claimed process, when the general conditions of that process are known in the prior art, does not result in a patentable process in the absence of criticality of the specific numerical parameters.

Thus, the combined disclosures of Asai et al. and Thompson would have rendered a process of making and cooling metallic powder as defined in the instant claims obvious to one of ordinary skill in the art.

10. Claims 2, 9 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art does not disclose or suggest a process as claimed and which includes generating an inert gas flow in the downward direction.


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11. The remainder of the art cited on the attached PTO-0892 and 1449 forms is of interest. This art is held to be no more relevant to the claimed invention than the art as applied in the rejections, *supra*.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Wyszomierski whose telephone number is (571) 272-1252. The examiner can normally be reached on Monday thru Friday from 8:00 a.m. to 4:30 p.m. Eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on (571) 272-1244. All patent application related correspondence transmitted by facsimile must be directed to the central facsimile number, (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
GEORGE WYSZOMIERSKI  
PRIMARY EXAMINER  
GROUP 1793

GPW  
October 22, 2007